14042 U.S.PTO
031204

Express Mail No. EV 367 776 559 US

22390 U.S.PTO
10/801140
031204

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | |
|---|---|---|
| Applicant | : | DiFrancesco, C., et al. |
| Serial No. | : | To be Assigned |
| Filing Date | : | Herewith |
| For | : | CATALYST SYSTEMS |

Mail Stop Patent Application
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

**TRANSMITTAL OF APPLICATION UNDER 37 CFR 1.41(c)**

Sir:

The undersigned attorney hereby makes application for U.S. Letters Patent on behalf of the following Applicants, whose address and citizenship are as follows:

| Inventors | Address | Citizenship |
|---|---|---|
| Chris D. DiFrancesco | Durham, North Carolina | USA |
| James Altizer | Durham, North Carolina | USA |
| Trefzger Christian | Durham, North Carolina | Germany |
| Kassman Edward | Durham, North Carolina | USA |
| Thomas Hastings | Durham, North Carolina | USA |

Please address all correspondence and telephone calls in connection with this application to:

Charles W. Calkins, Esq.
Kilpatrick Stockton LLP
1001 West Fourth St.
Winston-Salem, NC 27101
Telephone: (336) 607-7300
Facsimile: (336) 607-7500

Respectfully submitted,

Charles W. Calkins, Reg. No. 31,814

Date: March 12, 2004

Kilpatrick Stockton LLP
1001 West Fourth Street
Winston-Salem, NC 27101
(336) 607-7300

Express Mail No.: EV 367 776 559 US

PTO/SB/17 (10-03)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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# FEE TRANSMITTAL for FY 2004

*Effective 10/01/2003. Patent fees are subject to annual revision.*

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** ($) 2574

| *Complete If Known* | |
|---|---|
| Application Number | To be Assigned |
| Filing Date | March 12, 2004 |
| First Named Inventor | DiFrancesco, C., et al |
| Examiner Name | To be Assigned |
| Art Unit | To be Assigned |
| Attorney Docket No. | 54673/297873 |

**METHOD OF PAYMENT** *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: [redacted]

Deposit Account Name: Kilpatrick Stockton LLP

**The Director is authorized to:** *(check all that apply)*
☒ Charge fee(s) indicated below ☒ Credit any overpayments
☒ Charge any additional fee(s) during the pendency of this application
☐ Charge fee(s) indicated below, **except for the filing fee** to the above-identified deposit account.

**FEE CALCULATION**

## 1. BASIC FILING FEE

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| 1001 | 770 | 2001 | 385 | Utility filing fee | 770 |
| 1002 | 340 | 2002 | 170 | Design filing fee | |
| 1003 | 530 | 2003 | 265 | Plant filing fee | |
| 1004 | 770 | 2004 | 385 | Reissue filing fee | |
| 1005 | 160 | 2005 | 80 | Provisional filing fee | |

SUBTOTAL (1) ($) 770

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

| | | | Extra Claims | | Fee from below | | Fee Paid |
|---|---|---|---|---|---|---|---|
| Total Claims | 82 | -20 ** = | 62 | X | 18 | = | 1116 |
| Independent Claims | 11 | -3 ** = | 8 | X | 86 | = | 688 |
| Multiple Dependent | | | | X | | = | 0 |

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description |
|---|---|---|---|---|
| 1202 | 18 | 2202 | 9 | Claims in excess of 20 |
| 1201 | 86 | 2201 | 43 | Independent claims in excess of 3 |
| 1203 | 290 | 2203 | 145 | Multiple dependent claim, if not paid |
| 1204 | 86 | 2204 | 43 | ** Reissue independent claims over original patent |
| 1205 | 18 | 2205 | 9 | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) ($) 1804

***or number previously paid, if greater; For Reissues, see above*

**FEE CALCULATION** (continued)

## 3. ADDITIONAL FEES

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet. | |
| 1053 | 130 | 1053 | 130 | Non-English specification | |
| 1812 | 2,520 | 1812 | 2,520 | For filing a request for reexamination | |
| 1804 | 920* | 1804 | 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 | 1,840* | 1805 | 1,840* | Requesting publication of SIR after Examiner action | |
| 1251 | 110 | 2251 | 55 | Extension for reply within first month | |
| 1252 | 420 | 2252 | 210 | Extension for reply within second month | |
| 1253 | 950 | 2253 | 475 | Extension for reply within third month | |
| 1254 | 1,480 | 2254 | 740 | Extension for reply within fourth month | |
| 1255 | 2,010 | 2255 | 1,005 | Extension for reply within fifth month | |
| 1401 | 330 | 2401 | 165 | Notice of Appeal | |
| 1402 | 330 | 2402 | 165 | Filing a brief in support of an appeal | |
| 1403 | 290 | 2403 | 145 | Request for oral hearing | |
| 1451 | 1,510 | 1451 | 1,510 | Petition to institute a public use proceeding | |
| 1452 | 110 | 2452 | 55 | Petition to revive – unavoidable | |
| 1453 | 1,330 | 2453 | 665 | Petition to revive – unintentional | |
| 1501 | 1,330 | 2501 | 665 | Utility issue fee (or reissue) | |
| 1502 | 480 | 2502 | 240 | Design issue fee | |
| 1503 | 640 | 2503 | 320 | Plant issue fee | |
| 1460 | 130 | 1460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17 (q) | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| 8021 | 40 | 8021 | 40 | Recording each patent assignment per property (times number of properties) | |
| 1809 | 770 | 2809 | 385 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 770 | 2810 | 385 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| 1801 | 770 | 2801 | 385 | Request for Continued Examination (RCE) | |
| 1802 | 900 | 1802 | 900 | Request for expedited examination of a design application | |

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid SUBTOTAL (3) ($) 0

| SUBMITTED BY | | | | Complete *(if applicable)* | |
|---|---|---|---|---|---|
| *Name (Print/Type)* | Charles W. Calkins | *Registration No. (Attorney/Agent)* | 31,814 | *Telephone* | 336.607.7300 |
| *Signature* | | | | *Date* | March 12, 2004 |

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

*If you need assistance in completing this form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

## EXPRESS MAIL CERTIFICATE

| | |
|---|---|
| "Express Mail" mailing label number: | EV 367 776 559 US |
| Date of Deposit: | March 12, 2004 |
| Type of Document(s): | Fee Transmittal Form For FY 2004 (in duplicate);<br>Transmittal of Application Under 37 CFR 1.41(c);<br>Specification: 46 Pages;<br>Drawings: 7 Pages (Figs 1-7); and<br>Return Postcard. |

I hereby certify that the documents identified above are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and are addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Robin Leigh